

# ACADEMY

Newsletter

DEDICATED  
TO SCIENTIFIC  
RESEARCH AND  
EDUCATION,  
INSPIRING  
RESPECT FOR  
THE NATURAL  
WORLD



## SAVE STEINHART AQUARIUM

**L**eaking roofs, rusting pipes, inadequate ventilation, cracked concrete walls, settling floors, outdated electrical service, insulation and floors containing asbestos, paint containing lead ...

These are some of the serious structural problems challenging the operation of the Steinhart Aquarium. Years of saltwater corrosion have resulted in spiraling deterioration and damage. Without immediate repair the aquarium will continue to decline — eventually becoming too unsafe to operate and too expensive to renovate. Additionally, a major earthquake could destroy every fish and animal loved so much by all their visitors.

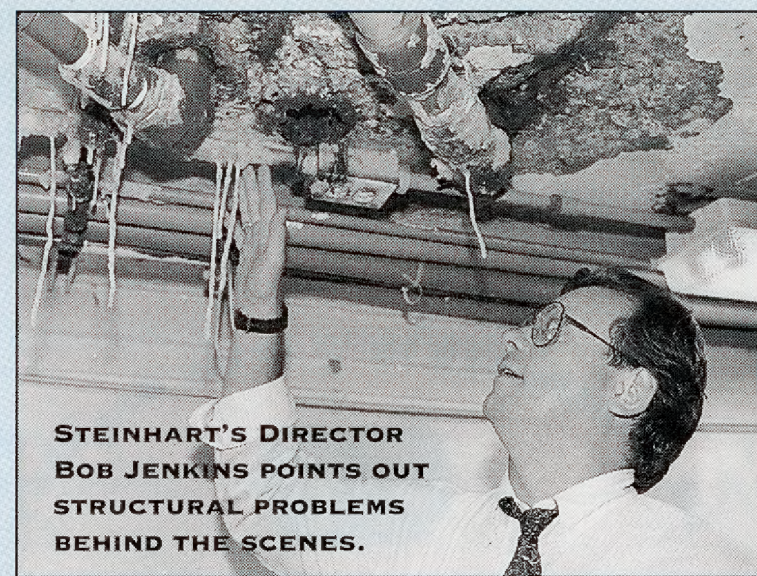
Due to the substantial deterioration of the life-safety structures of the aquarium — and the potentially dangerous conditions in the event of another earthquake — the S.F. Board of Supervisors has unanimously agreed that a \$29 million general obligation bond should be placed on the November ballot. The bond will enable voters to approve the funds necessary to: provide seismic upgrades; remove asbestos, lead paint and other toxins; re-



place the life support system; and improve disabled access to Steinhart.

The Academy's board of trustees also has committed to making improvements to the design and displays that will allow new technologies to be used without compromising the essence of the aquarium.

During the fall, a cadre of volunteers and staff will explain to San Francisco citizens the importance of our aquarium to the education and enjoyment of visitors, to the preservation of endangered species and to the scientific mission of the Academy. If you would like to help us in our efforts in any way — be it contributions of time or energy, or displaying a poster in your home or office — please call (415) 351-1995, and "Save Steinhart Aquarium."



STEINHART'S DIRECTOR  
BOB JENKINS POINTS OUT  
STRUCTURAL PROBLEMS  
BEHIND THE SCENES.

Dong Lin

### SEPTEMBER MEMBERS MEETING

**J**ourney with Aama, a Nepali woman, from her village in the foothills of the Himalayas on a 12,000-mile odyssey to the United States. Author Broughton Coburn's slide-illustrated presentation begins in Aama's village in Nepal, where we are immersed in the cosmology, philosophy, hopes and humor of a woman who had virtually no exposure to Western culture. In 1988 she turned 84, a watershed year sanctified by a long-life ritual that relieves elders from further worldly obligations — an auspicious time to go on a pilgrimage. That's when she came to America with Coburn and his wife to search for the soul of our country.

Aama visits cities, advises farmers, kisses a killer whale, bathes ritually in the ocean, rejoices at Disneyland, gambles in Las Vegas, meets with Native Americans, finds kin among the Hutterites and prays at Old Faithful. Aama's reactions to the

## AAMA



### FROM NEPAL TO AMERICA

With author Broughton Coburn

Sept. 13, 2 p.m. & 7:30 p.m.

United States are amusing, surprising and sometimes disconcerting, yet we unexpectedly find that her emotions and sensibilities are not unlike our own. Aama is a universal spirit, and she has found the sacredness that surrounds us and breathes within us.

Coburn lived and worked in Nepal for more than 15 years and formed a special bond with Aama, who was his landlady for two of those years. He is the author of two nonfiction books, *Aama in America: A Pilgrimage of the Heart* and *Nepali Aama: Life Lessons of a Himalayan Woman*. A book-signing will follow the lecture in the Academy Bookstore.

Please present your membership card at the Academy's entrance and again at the auditorium. This members meeting is provided as a benefit of membership and thus is only open to members of the Academy.



## NEW DIRECTOR OF DEVELOPMENT ANNOUNCED



Susan Middleton

The Academy is delighted to welcome Pamela Cook to her position as the Academy's director of development. Cook, who began work in July, said she is "excited about returning to the Bay Area and looking forward to working with the staff, board of trustees and volunteers on both existing fund-raising programs and developing new strategies to enhance them."

Dr. Evelyn E. Handler, the Academy's executive director, expressed her enthusiasm for Cook's appointment. "Pamela's experience and knowledge of the Bay Area philanthropic community makes her uniquely qualified for the position," Handler said.

An experienced manager and a proven leader, Cook has a strong fund-raising background and a demonstrated commitment to education. For the past three years, she has been the associate dean of development for arts and sciences at the University of Virginia. Prior to this position, she served as director of individual giving at Stanford University's engineering school and as campaign director for the United Way of Santa Clara County.

Cook is joined by her husband, Paul Gietzel, vice president of technical services at Utopia Information Systems in San Francisco, and their 5-year-old son, Kevin.

## NEW DISPLAYS IN WATTIS GALLERY



### "Weapons of Wa" and "California Baskets"

Enjoy new pieces on display in Wattis Gallery from our anthropology collection. See nine handmade fighting swords from the Wa people, one of many tribal groups whose homelands border China and Myanmar (formerly Burma). These swords were handed down for generations among Wa leaders. Also on display are nearly 30 California Native American baskets, representing more than 20 tribes from every part of the state, along with examples of basket-making materials and explanations of basketry techniques.

## TRADITIONAL ARTS

### Maritime Songs

After 24 years in the British Royal Navy, ex-submariner Tom Lewis draws on his nautical experience to present traditional work songs and maritime lore from the age of the sailing ships. Lewis' rich tenor voice is enhanced by the button accordion and the ukulele.

Sat., Sept. 16 — 1 p.m. to 2 p.m. (Auditorium)

### Dance From the Caucasus

The Kafkaz Ensemble performs dances from Georgia, Circassia and Azerbaijan, including rarely seen dances from Uzbekistan, Tajikistan and other remote regions of the central Asian steppes.

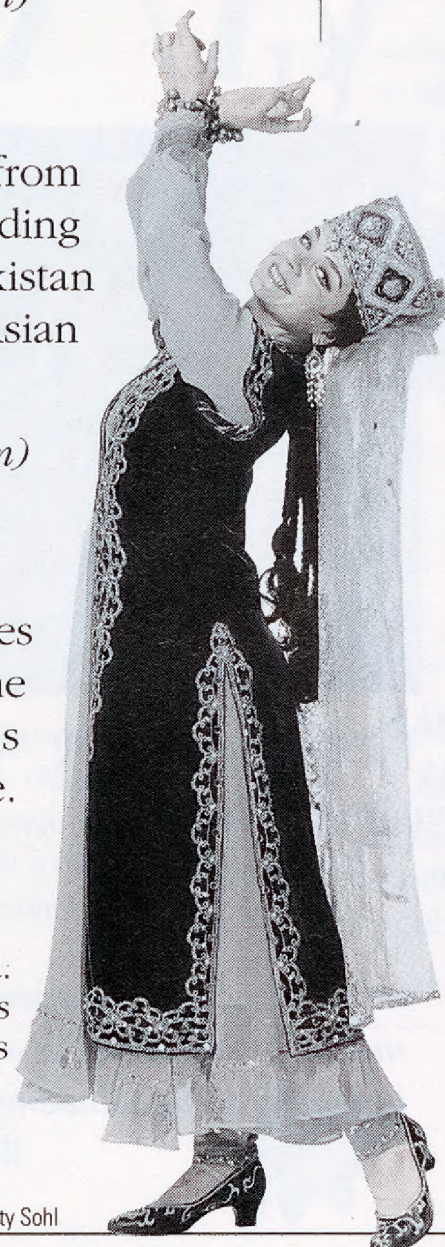
Sat., Sept. 23 — 1 p.m. to 2 p.m. (Auditorium)

### Polish Folk Tales

A dragon in the castle, elves in the salt mines and a devil on the dance floor — all come alive in Susan Marie Frontczak's stories from her Polish and Czech family heritage.

Sat., Sept. 30 — 1 p.m. to 2 p.m. (Auditorium)

Explore cultural traditions from around the world. Free after general admission. The traditional arts program is funded by the Paul L. and Phyllis Wattis Foundation. Call 750-7164, for more information.



©1994 Marty Sohl

## Ancestral Passions: The Leakey Family

The Leakey family is the premier dynasty in the search for human origins. Richard, Louis and Mary Leakey are the subject of a new biography, *Ancestral Passions: The Leakey Family and the Quest for Humankind's Beginnings*, by Virginia Morell. Morell began research for this book in 1984 when Richard Leakey invited her to join him on his West Turkana exhibition (where Turkana Boy, a 1.6-million-year-old *Homo erectus*, was found). She also traveled with Mary Leakey to Olduvai and Laetoli.

Morell is a noted science writer whose work has appeared in *Science* and *Discover*. A special reception will precede the lecture at 6 p.m. with wine and hors d'oeuvres in African Hall. A book-signing will follow the lecture. This event is co-sponsored by the Leakey Foundation.

Thu., Sept. 14 — 7:30 p.m.

Lecture only: \$6 members/\$10 nonmembers

Reception only 6 p.m.: \$30 members/\$35 nonmembers



Michael McRae

## How Evolution Works The Rube Goldberg

Nature is often portrayed as a system of perfectly designed mechanisms. A new record debunks this view. Dr. Robert Bakker's experiments come up with a different picture. (Goldberg's cartoons of complicated machinery.)

An iconoclastic and controversial author and has written for *Scientific American*, *Natural History* and *Time*. He will follow the lecture.

Tues., Sept. 19 — 7:30 p.m.

\$6 members/\$10 nonmembers

Special lectures are presented in the auditorium. Use order form for tickets. For more information, call 750-7164.

## ADULT AND FAMILY EDUCATION

### Eastern Sierra Autumn: Mono Lake and More

Explore the dramatic Mono Basin at one of the most beautiful times of the year. The aspen groves are bright orange and rabbitbrush blooms amidst the sagebrush while thousands of birds flock about the lake. Through a number of short walks, instructor David Wimpfheimer will teach you about the natural and human history of the area. Optional accommodations available at the Best Western Lake View Lodge.

Sept. 29-Oct. 1

Cost: \$185 members/\$200 nonmembers (double); \$250 members/\$265 nonmembers (single); \$100 members/\$115 nonmembers (no accommodations)

### Revisiting the Hubble Telescope

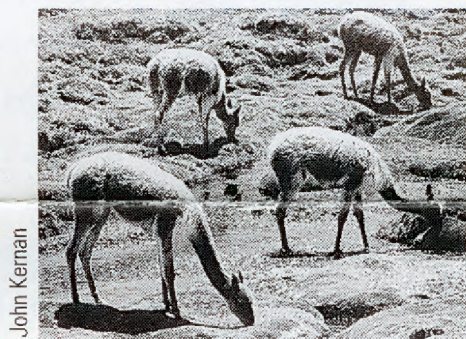
Join us for a three-week armchair tour of the Hubble Space Telescope. With instructor Darryl Stanford we'll see in detail how the Hubble works, analyze the original optical problems and how they were solved. We'll inspect pictures taken with the Hubble, see how astronomers make their observations and discern the types of objects the Hubble can and cannot view.

Sept. 11-25 (3 Mon.) — 7 p.m. to 9 p.m.

Cost: \$45 members/\$55 nonmembers

For more information, call adult and family education at 750-7100.

## ACADEMY TOURS



John Kernan

### In the Wake of I

On this exciting tour, you'll observe the world's largest adobe city). You'll board small boats and take you to the fortress-village of Atacama (known

mummies), Lauca National Park, Lake Chungará and the world's largest adobe city). You'll board small boats and take you to the fortress-village of Atacama (known

Mar. 19-Apr. 4; Cost \$7,590-\$9,590 per person (includes international airfare only; \$6,670-\$8,670 per person (includes

### Whale Lagoons and Yucatán Trips Still

There are still spaces left on two of our exciting tours. Maya — a land tour with Richard Hansen. Age to the Whale Lagoons — a cruise aboard the *Jan.* 11-20.

For more information and detailed information on Academy tours, please call the

*My Pooled Income Fund gift is an ideal way to help the Academy and receive a nice quarterly income check at the same time!*

Ellen Kipp, Academy member since 1945 (at least!)

Ellen Kipp has many friends and children. Several of them are Academy Pooled Income Fund members. Kipp discloses that the Pooled Income Fund provides immediate income and avoids capital gains taxes on payments. It is a future gift to the Academy. On Sept. 30, the Pooled Income Fund will make a quarterly income payment. December? If you are not a member and would like to join, call 750-7216, the back of the

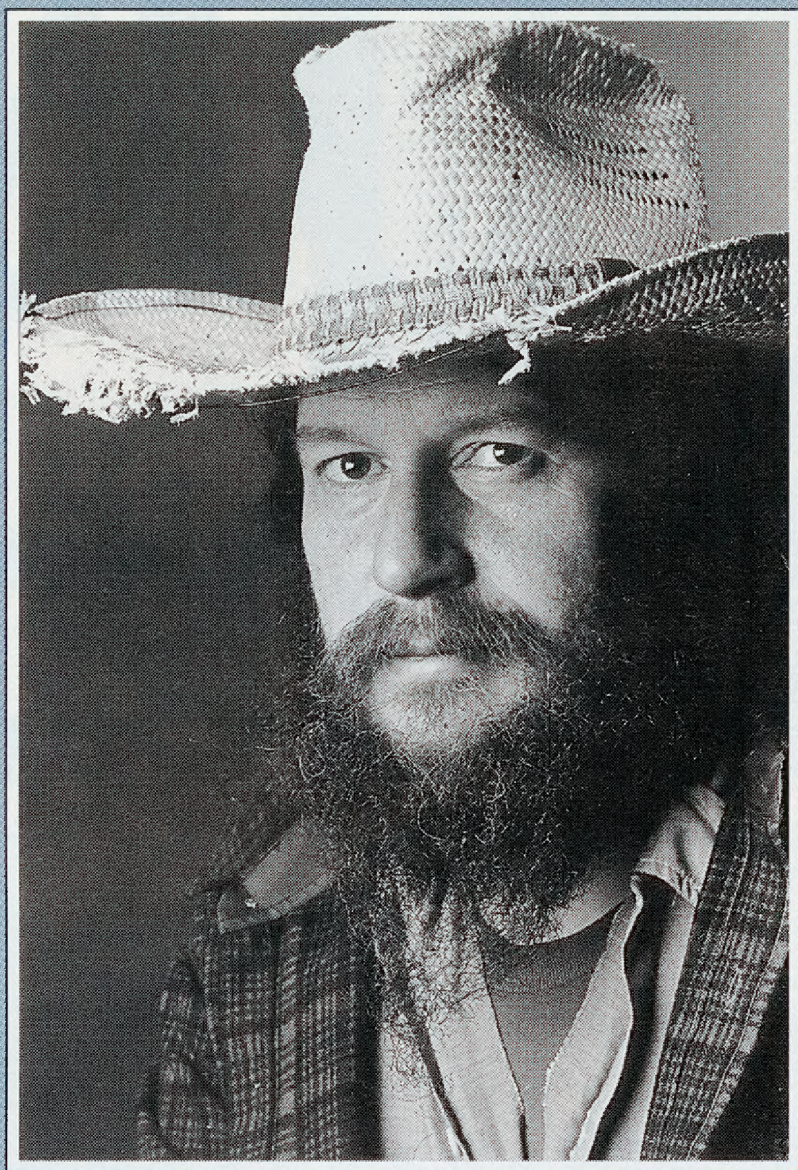


## orks: rg Syndrome

ed as a delicately balanced sys-  
ed organisms. But the fossil  
ew. Animals evolve in fits and  
slow rates and hardly ever  
rfection. Renowned paleontolo-  
explains how Darwinian pro-  
ube Goldberg solutions.  
epicted counterintuitive and  
used to complete simple tasks.)  
entertaining lecturer, Bakker is  
or of *The Dinosaur Heresies*,  
ence, *Nature*, *Scientific Ameri-*  
and *Audubon*. A book-signing

m.  
mbers

nation, please call 750-7128.



## RAVEL

### Darwin: Patagonia to Peru

cruise aboard the *M.S. Alla Tarasova*  
incredible diversity of Chile and Peru.  
as your guide, shore excursions will  
Valley of the Moon, the 12th century  
f Pukará of Lasana, San Pedro de  
for its collection of well-preserved  
ngará and Chan Chan (home of the  
all aircraft for a flight over the famous  
ip to the fabled city of Machu Picchu.

(double occupancy), including interna-  
double occupancy), no airfare

### Available

ting excursions: Yucatán, Land of the  
and Chuck Cecil, Jan. 6–20; and Voy-  
rd the *M.V. Sea Bird* with Jim Kelley,

ineraries on these and other  
ravel office at 750-7348.

has given memberships to  
ds and family — including her  
al years ago, she made her first  
ed Income Fund gift and later  
and with another contribution.  
vered that a pooled fund pro-  
te benefits, including a chari-  
ax deduction, relief from capi-  
and reliable quarterly income  
lso provides an important fu-  
Academy.

, each participant in the Acad-  
come Fund will receive a quar-  
check. Why not join them in  
ou are at least 55 years of age  
e information on the benefits  
y Pooled Income Fund, please  
or use the response form on  
is newsletter.

### Remembering Mrs. Marriner (Sallie) Eccles, Academy Benefactor 1908 – 1995

The Academy recently lost a dear  
friend with the passing of Mrs.  
Marriner (Sallie) Eccles. Raised in  
Long Island, N.Y., she spent most  
of her life in Salt Lake City, Wash-  
ington, D.C. and San Francisco,  
generously sharing her boundless  
energy, invaluable advice, financial  
generosity and love for life on  
Earth. She provided numerous



MRS. ECCLES SPEAKS  
WITH MAYOR FRANK  
JORDAN AT THIS  
YEAR'S ACADEMY  
BALL.

gifts and  
grants to the  
Academy and  
other Bay  
Area institu-  
tions to ensure  
that the arts  
and sciences  
would be  
made avail-  
able to every-  
one.  
Eccles, who began supporting  
the Academy in 1977, directed  
much of her philanthropic effort  
toward the aquarium, remarking  
once that “the aquarium makes me  
believe in God.” She conceived of  
and supported evening hours on  
“Free Wednesdays” at the Acad-  
emy to allow people who work  
during the day a chance to enjoy  
the museum. Ranking high among  
Eccles’ lifetime of accolades was  
having one of Steinhart’s black-  
footed penguins named “Sallie”  
after her. The lives of those who  
knew her, and all the animals and  
visitors to the Museum that did  
not, are richer because of her.

## MORRISON PLANETARIUM

### Knock, Knock...

**Feature Sky Show:** Who’s out there? Take a look at the  
search for extraterrestrial life, from NASA’s defunct Project  
SETI (now revived and renamed Project Phoenix) and  
Berkeley’s Project Serendip to earlier attempts to listen  
for signs of alien civilizations. Did you know that radio  
pioneer Guglielmo Marconi once listened for messages  
from Mars or that Nikola Tesla believed that he had  
been contacted by another world? Despite its public  
appeal, why don’t many scientists take the subject of UFOs  
seriously? Find out where we stand in the search for aliens.  
The show opens Sept. 15 and is shown daily at 2 p.m.  
and at 4 p.m. on weekends and holidays (closes Jan. 7.).

### Sky Shows Delight Visitors

**Current Sky Shows:** As of June 30, 86,571 visitors have  
seen a planetarium sky show this year.

The planetarium will be CLOSED for sky show  
changes Sept. 11–14 and will reopen with “Knock,  
Knock...” on Sept. 15. The additional weekday sky shows  
that were added for summer will end after Labor Day at  
which point there will only be a 2 p.m. show Monday  
through Friday.

### September Schedule

The planetarium is closed Sept. 11–14

Sky Show/Description	Wkday	Wkend
<b>Knock, Knock...</b> <i>search for extraterrestrial life</i> (opens Sept. 15)	2 p.m.	2 & 4 p.m.
<b>Encounter With a Giant</b> <i>the solar system's largest planets</i> times through Sept. 10	2 p.m.	2 & 4 p.m.
times starting Sept. 15	—	1 & 3 p.m.
<b>Realm of the Galaxies</b> <i>the secrets they hold</i> (closes Sept. 10)	—	1 & 3 p.m.
<b>Where in Space is Carmen Sandiego?</b> <i>a family show</i>	—	11 a.m.
<b>StarTalk</b> <i>tour of the night sky</i>	—	noon

For more information, please call 750-7141.

### Stellar Alchemy: The Origin of Chemical Elements

**B. Dean Lecture:** Once nuclear reactions were produced  
in the laboratory, their role in stellar energy generation  
became apparent. However, it has only been within the  
last 10 years that astronomical observations have pro-  
vided confirmation of the theoretical ideas developed in  
the 1930s and 1950s.

Dr. Eric Norman, senior scientist at the nuclear sci-  
ence division of the Lawrence Berke-  
ley Laboratory, studies the center of  
stars from a mile underground.  
Norman will describe the sequences  
of nuclear reactions believed to be re-  
sponsible for power generation within  
stars. The evolution and final fates of  
stars will be discussed, along with the  
key astronomical observations that  
support these models.

Tue., Sept. 26 — 7:30 p.m.  
Tickets, \$3 each

The Fall '95 series will continue with Dr. Ed  
Smith, Jet Propulsion Laboratories, Oct. 31; Dr. Bernard Sadoulet,  
U.C. Berkeley Center for Particle Physics, Nov. 21; and Dr. Leslie  
Young, NASA-Ames, Dec. 12.

For advance tickets, use order form. Tickets may be available at the  
door on a standby basis. Please call 750-7141, for more information.



Mt. Wilson Observatory



THE  
ACADEMY  
STORE

Just in time for "back to school," the Academy's own signature totebag featuring graphic animals inspired by ancient cave paintings. This generous 14-by-19 inch totebag is printed on both sides and is machine washable, for only \$12.95.



Dong Lin

SEPTEMBER

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	<b>PERMANENT EXHIBITS</b> <b>Penguin Environment:</b> A breeding colony of 18 black footed penguins waddles and swims in this crowd pleasing display in the aquarium. (See daily feeding times.)					
3 <b>PENGUIN FEEDINGS</b> are at 11:30 a.m. and 4 p.m. every day	4 Holiday sky show schedule in effect for Labor Day "Buccellati: Artistry in Gemstones & Gold" exhibit closes	5 Return to non-summer hours; the Academy's open 10 a.m. to 5 p.m.	6 <b>Free Day</b> First Wednesday of each month	7 <b>DOLPHIN FEEDINGS</b> are at 10:30 a.m., and 12:30, 2:30 and 4:30 p.m. every day	8 <b>HIGHLIGHT TOURS</b> Free one-hour highlight tours are offered daily.	9 <b>MEMBERS</b> Please bring your membership card when you visit the Academy 
10 "Realm of the Galaxies" sky show closes	11 Planetarium closed through the 14th for sky show change	12	13 Aama: From Nepal to America, 2 & 7:30 p.m. (Members Meeting) 	14 Ancestral Passions: The Leakey Family, 7:30 p.m. (Special Lectures)	15 Planetarium reopens with "Knock, Knock..." feature sky show	16 Maritime Songs, 1 p.m. (Traditional Arts)
17 <b>PLANETARIUM SKY SHOWS</b> on weekends at 11 a.m., and at noon, 1, 2, 3 and 4 p.m.	18 <b>PLANETARIUM SKY SHOWS</b> on weekdays at 2 p.m.	19 How Evolution Works: The Rube Goldberg Syndrome, 7:30 p.m. (Special Lectures)	20	21 <b>SCIENCE IN ACTION</b> General programs Mon.-Fri. at 11:30 a.m. Children's programs Sat. at 12:30 & 3 p.m.; this month's topic is a celebration of <i>Everglades</i> .	22 <b>SPECIAL EXHIBITS</b> "Dancing to the Fossil Record," through Jan. 8	23 Dance From the Caucasus, 1 p.m. (Traditional Arts)
24	25	26 Stellar Alchemy: The Origin of Chemical Elements, 7:30 p.m. (B. Dean Lecture)	27 <b>LASERIUM SHOWS</b> Thursday-Sunday, evenings, call 750-7138	28	29	30 Polish Folk Tales, 1 p.m. (Traditional Arts)

OCTOBER DATES TO REMEMBER  
Oct. 31 - Dr. Ed Smith (B. Dean Lecture)



UPCOMING MEMBERS MEETINGS  
Oct. 11 - Flora & Fauna of China, with Nancy Pickford  
Nov. 15 - Bears, with Matt Reid, director, The Great Bear Foundation  
Dec. 13 - Life in the Oceans, with Norbert Wu

California Academy of Sciences  
Golden Gate Park  
San Francisco, CA 94118

ORDER FORM

Non-Profit Organization  
U.S. Postage Paid  
Permit No. 3565  
San Francisco

Address Correction Requested

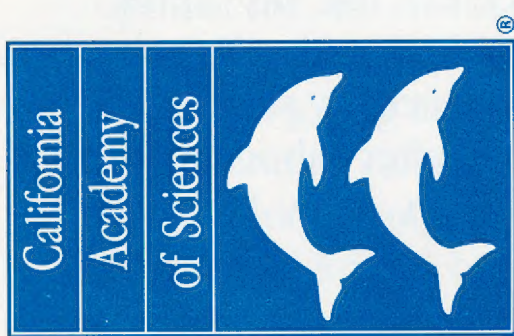
SPECIAL LECTURES	Qty/Mem.	Qty/Nonmem.	Total
Ancestral Passions: The Leakey Family / Sept. 14 (Lecture only) (Reception only)	x \$6 x \$30	x \$10 x \$35	= =
How Evolution Works: The Rube Goldberg Syndrome / Sept. 19	x \$6	x \$10	=
TOTAL \$			

PLANETARIUM'S B. DEAN LECTURE SERIES	Quantity	Total	
Stellar Alchemy: The Origin of Chemical Elements / Sept. 26	x \$3	=	
Dr. Ed Smith / Oct. 31	x \$3	=	
Dr. Bernard Sadoulet / Nov. 21	x \$3	=	
Dr. Leslie Young / Dec. 12	x \$3	=	
TOTAL \$			

POOLED INCOME FUND	
<input type="radio"/> Please send me information about the Academy's Pooled Income Fund.	
TOTAL PAYMENT ENCLOSED \$	

PAYMENT METHOD  
☐ (Check one) ☐ Check ☐ VISA ☐ MasterCard ☐ American Express  
Credit card charges gladly accepted over \$10.  
Card# \_\_\_\_\_ Exp. Date \_\_\_\_\_  
Signature \_\_\_\_\_

MAKE CHECK PAYABLE TO: C.A.S. and mail with this coupon form to:  
Membership Office, Ticket Services  
California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118  
Daytime Phone \_\_\_\_\_  
Include a self-addressed, stamped envelope for each series to which you subscribe.  
No refunds/exchanges.



The Academy includes the Natural History Museum, Steinhart Aquarium and Morrison Planetarium. Open every day from 10 a.m. to 5 p.m. July 4-Labor Day we're open 9 a.m to 6 p.m.

VISITOR SERVICES

Academy Information: 415-750-7145  
Academy Store: 750-7410  
Admissions: 750-7159  
Aquarium: 750-7247  
Biodiversity Center: 750-7361  
Development Office: 750-7216  
Docent Tours: 750-7155  
Education Office: 750-7100  
Group Information: 750-7159  
Job Hotline: 750-7333  
Laserium: 750-7138  
Lectures: 750-7128  
Library: 750-7102  
Membership Office: 750-7111  
Planetarium: 750-7141  
Planned Giving: 750-7216  
Security: 750-7000  
Switchboard: 221-5100  
Travel: 750-7348  
Volunteer Services: 750-7154  
Weekend Information: 750-7375

The Academy Newsletter is published monthly for Academy members.  
© 1995 California Academy of Sciences  
Editor / Sheri Ketchum  
Design / Nancy Campana Design  
Printing / Fruitridge Printing & Lithograph Inc.

Printed on Recycled Paper  
with Soy-based Ink